REPORT: FE-43-97

RAILROAD: Union Pacific Railroad Company (UP)

LOCATION: Topeka, Kansas

DATE, TIME: Dec. 11,1997, 5:05 a.m., CST

PROBABLE CAUSE:

The Locomotive Engineer failed to observe the oncoming train on the adjacent track and was struck after dismounting his locomotive.

EMPLOYEE:	**Craft.....**	**Transportation**
	Activity.....	Switching
	Occupation.....	Locomotive Engineer
	Age.....	46 years
	Length of Service.....	23 years
	Last Operating Rules.....	May 31, 1996
	Last Physical Exam.....	May 13, 1997
	Last Efficiency Test.....	Dec. 5, 1997
	Last Engineer Re-certification.....	July 10, 1995

Circumstances Prior to the Accident

At 6:30 p.m. on Dec. 10, 1997, the 2-person Crew, comprising an Engineer and a Conductor, of UP Train No. MSIKCX-10 reported for duty at Salina, Kansas, after receiving the statutory off-duty period. The Crew, after assembling the train, departed Salina at 9 p.m. The train, which comprised two locomotives and 99 cars, traveled to Topeka, Kansas, a distance of 131 miles, without incident. The Crew had instructions to stop at Topeka to set out the trailing Locomotive UP 3587 and the head 49 cars, then depart with 50 cars and the Lead Locomotive UP 3236. The Crew arrived at Topeka at 4:25 a.m. on Dec. 11, 1997, and proceeded to set out as instructed. The locomotive and cars were to be set out on Yard Track No. 2. Upon arriving at Topeka, the Conductor dismounted the Lead Locomotive UP 3236, made the initial cut, and instructed the Engineer to proceed. After placing the 49 cars and the trailing Locomotive UP 3587 onto Yard Track No. 2, the Conductor and the Engineer worked to separate the two locomotives. Next, the Conductor lined the switches. The lead locomotive was returned to the remaining 50 cars of the train on Track No. 1. When the Engineer experienced problems with the main

reservoir pressure on Locomotive UP 3236, the Crew contacted the Train Dispatcher and the local Manager of Train Operations (MTO) for assistance.

A second UP train, Symboled CBTAC-09, was a loaded unit coal train comprising two locomotives and 127 cars, which was traveling eastbound toward Kansas City from Marysville, Kansas. The Crew, comprising a Locomotive Engineer and a Conductor, went on duty at Marysville, Kansas at 12:35 a.m. on December 11, 1997, after receiving the statutory off-duty period.

The area was traversed by two main tracks using Centralized Traffic Control (CTC) as the method of operation. The CTC was controlled by the Train Dispatcher located at the Harriman Train Dispatching Center in Omaha, Nebraska. The main tracks were numbered from north to south with Track No. 1 to the north and Track No. 2 to the south. A yard, located to the north of Track No. 1, was accessible by a set of crossover switches from either Track No. 1 or 2. These crossover switches, controlled by the Train Dispatcher, were located approximately 135 feet east of the accident site. An MTO headquartered at Topeka managed this yard.

The maximum authorized speed at the accident location was 40 mph; however, a permanent speed restriction of 30 mph existed just east of the point of impact. Sight distance from the point of impact was approximately 550 feet toward the west.

The accident area was well lit. A large light tower with 14 sodium vapor light fixtures was located one track north of the accident site west of where Locomotive UP 3236 on Train No. MSIKCX-10 was standing on Track No. 1.

Track centers were 13 feet between Track No. 1 and Track No. 2, allowing seven feet, four inches of clearance from the south rail of Track No. 1 to the north rail of Track No. 2. When the track was occupied by locomotives, clearance was approximately four feet, six inches.

At the time of the accident, the sky was clear, and the temperature was below freezing. There were approximately two inches of snow on the ground. In the area of impact, the snow was hard packed from people walking on it.

The Accident

After coupling to the remainder of UP Train MSIKCX-10, the Conductor returned to the cab of Locomotive UP 3236 and awaited the arrival of the MTO. The MTO was in contact with the Crew of MSIKCX-10 via radio. He then proceeded to the train to further assist the Locomotive Engineer in determining the problem with the air brake system. The Conductor and Engineer were at the rear (west end) of Locomotive UP 3236 when the MTO arrived. The Conductor returned to the cab of the locomotive where he was to relay information concerning the air pressure to the MTO and Engineer. The MTO and the Engineer were working on the south side of the locomotive and adjacent to Track No. 2. The Engineer and the MTO were discussing possible problems when the Engineer decided to dismount the locomotive. He was going to

check the angle cocks located on the west end of the locomotive.

The MTO remained on the locomotive and was partially inside the compressor compartment at the west end of the locomotive. The Engineer walked east toward the cab of the locomotive. At this point, the Engineer was struck by eastbound UP Train No. CBTAC-09 at 5:05 a.m. (CST), which was passing by on the adjacent main track.

The Topeka Police Department was the initial emergency responder on the scene. The Engineer suffered blunt trauma injuries. The Topeka Ambulance (a division of the Topeka Fire Department) arrived and transported the Engineer to Stormont Hospital in Topeka, Kansas.

(Please see the attached two diagrams of the accident scene to help you visualize the chain of events that led up to the fatality.)

Post-Accident Investigation

Post-Accident Toxicological Testing was performed consistent with the requirements of Title 49, Code of Federal Regulations, Subpart C. Testing was done only on the Locomotive Engineer of Train MSIKCX-10. Test results were negative.

An inspection of the accident site was conducted on Dec. 11, 1997. Locomotive speed tapes were downloaded from Lead Locomotive UP 6750 on Train CBTAC-09. The tapes indicated a train speed of 32 mph, consistent with interviews from Crew Members, in compliance with applicable speed restrictions for the area. Interviews with the Crew of CBTAC-09 confirmed that the locomotive auxiliary (ditch) lights were not operating. The Engineer stated that he had dimmed the headlight so as not to blind the Crew on the adjacent track. The locomotive whistle was in operable condition, but was not being sounded as the train approached the east end of Train MSIKCX-10.

The Crew Members on Train CBTAC-09 were unaware they had struck the Engineer of Train MSIKCX-10 and continued to operate eastbound. They learned about the accident when they heard the emergency radio broadcast on the company radio.

The Conductor of Train MSIKCX-10 witnessed the event from his position in the cab of Lead Locomotive UP 3236. He was seated at the Engineer's control stand (on the south side of the locomotive which was facing east) and was able to see both the MTO and the Engineer from that position. The Conductor attempted to warn the Locomotive Engineer as Train CBTAC-09 approached from the west, but was unsuccessful. The Conductor recognized (according to testimony) that the Locomotive Engineer was in possible jeopardy, but not imminent danger.

The Locomotive Engineer of Train MSIKCX-10 was struck and thrown between the two main tracks with his head toward Track No. 2. Because the Engineer had been struck in the back, the investigators concluded that he was not aware of the approaching eastbound train. According to

the pilot sheet, the Engineer was struck by the front of Lead Locomotive UP 6750 of Train CBTAC-09.

Statements from the MTO and the Conductor of Train MSIKCX-10 varied to some degree regarding the initial contact of the Train Dispatcher to request emergency response units. Topeka Ambulance Crews arrived within 15 minutes. The MTO left the locomotive to render aid and ascertain the condition of the injured Engineer. He called for blankets or coats to keep the Engineer warm. The Engineer was conscious and told the MTO he was having problems breathing. The ambulance arrived shortly and was directed to the location by yard personnel. The Engineer was transported to a local hospital where he died while on the operating table.

An inspection of the train makeup and consist for train CBAC-09 was made. There were no abnormalities noted. A brake test was conducted after the incident, and no defects were noted. In addition, locomotive repair records were inspected, and no exceptions were noted.

Interviews with Crew Members and the MTO were minimal due to the extreme stress these employees endured. The Crew had given statements to UP Claim Department personnel at their request. Interviews conducted by FRA did not vary from those written statements.

UNION PACIFIC RAILROAD

FORM 52072 (Rev. 3-94)

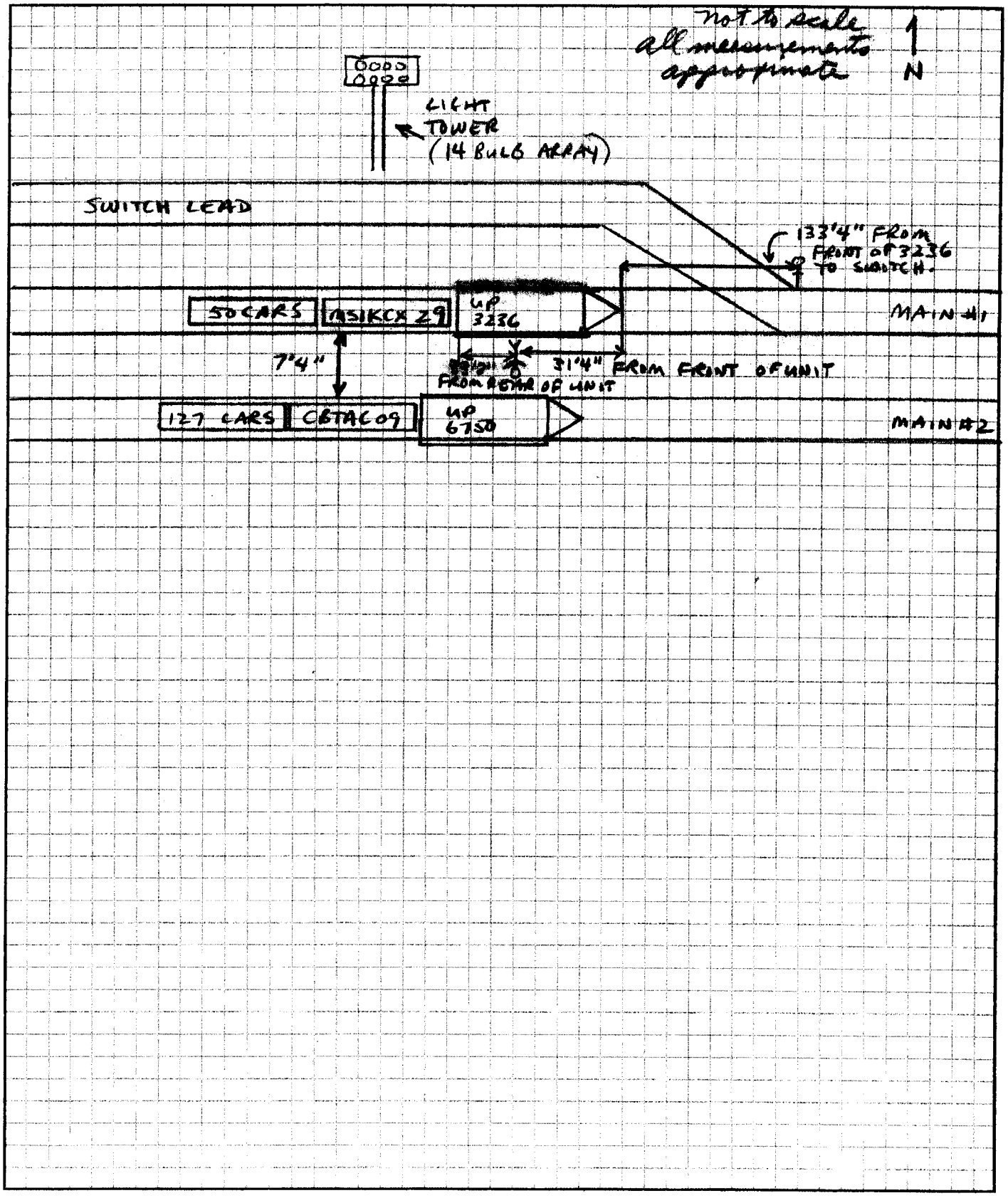
ACCIDENT DIAGRAM

Claimant: JOE L. KING File No. 243620

Occupation/Classification ENGINEER Location TOPEKA, K.

☐ PI ☒ PI&D ☐ LDP

Diagram by TW BARNETT Date 12-12-97



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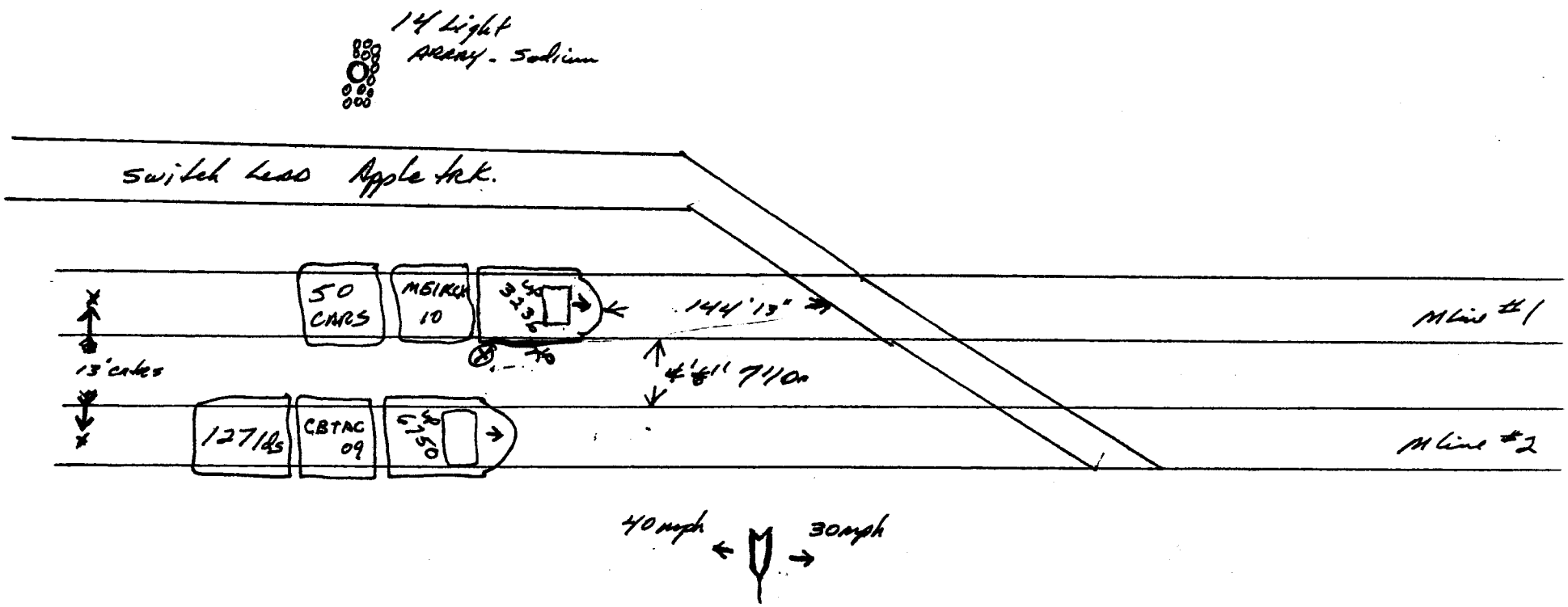

⊗ Point of impact

Not to scale

MSIRCX · 10 · ~~Stopped~~ E·BND

CBTAC · 09 31 mph E·BND

W. A. Angell III

12-14-97